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Introduction - 1 min

Thank you for inviting me, etc.

When I joined the Agency in 1978, my first project at EPA was to help Doug Castle demonstrate to President Carter and the rest of the Administration that there is plenty of natural gas supply, and therefore, that natural gas can and should play an important role in both energy policy and improving air quality -- from generating electricity to power our homes and businesses to providing energy to power our nation's cars, buses and trucks.

Well, it took a while to convince people, but I think on many fronts you, and we, have succeeded.

Compressed natural gas is clean, convenient and available. On top of that, natural gas vehicles are gaining acceptance. Over 85,000 nationwide existed in 1998, and refueling stations are available in all of the lower 48 states. The Big Three automakers, and Honda, all have CNG vehicles certified -- and Honda has produced the 1998 Civic GX, certified at 1/10 of an Ultra-Low Emitting Vehicle (ULEV) – the lowest recorded emissions for any alternatively fueled vehicle.

These are exciting developments for your industry, and for us at EPA as well. I think we're entering a new era of partnership with your industry - across the board, our initiatives are leveling the playing field and thereby creating opportunities for natural gas in the marketplace.

I'd like to start by giving you some background as to our air programs and the accomplishments we've made. Then, talk about how we're changing our regulations to use performance-based and fuel neutral standards; and how these new standards, along with other incentives and initiatives, will benefit the penetration of natural gas fueled vehicles into the marketplace.

1. Background- 5 min.

The 1990 Clean Air Act Amendments passed with overwhelming support from both the House and Senate and set ambitious air pollution reduction goals.

Since 1990, we've made tremendous progress in implementing the Clean Air Act. And we've learned some important lessons – the benefits of stakeholder involvement, market-based policies, flexible, common-sense implementation, and the value of the public's right to know. We've also learned since passage of the Act, that the dire predictions of high costs

and low benefits have not come to pass - in fact, in many areas of the law, reductions have been made faster and cheaper than we ever expected.

Through rules, voluntary measures, market mechanisms, state partnerships, and stakeholder negotiations, we will be removing over **30 million tons** of pollution from the air each year. Most of these reductions are already underway, the remainder will be achieved by 2010.

Let me mention a few success stories from the 1990 Act that we are especially proud of:

Acid Rain -

The Acid Rain Program, which began in 1995, is probably the most watched of our CAA programs because it used for the first time nationwide emissions trading, and the results have been tremendous. Trading (when fully implemented) will save the utility industry billions in yearly compliance costs ($5 billion estimated without trading, less than $2 billion with trading); and has spurred competition in other sectors of the economy such as freight, coal, and scrubbers -- all of which results in lower costs. Annual costs of the program are now estimated to be half of what originally thought in 1990 ($4 billion in 1990, $2 billion now). Because of this program, rainfall in the eastern United

States has already been found to be up to 25% less acidic and some ecosystems in New England are showing signs of recovery.

NAAQS Attainment-

Since 1993, an unprecedented number of cities have met the health-based national ambient air quality standards. For example, of the 42 carbon monoxide areas designated as nonattainment in 1991, only 6 areas were still in nonattainment in 1997. We are also doing extremely well in achieving attainment for the other criteria pollutants. Soon we'll have no nonattainment areas in the country for nitrogen dioxide. The few remaining lead and sulfur dioxide nonattainment areas in the country are the result of localized point sources for which action on an individual basis is being taken. Also, despite our long-term concern about ozone, overall levels of ozone have been declining. In terms of ozone trends, every year in the 1990's has been cleaner than every year in the 1980's.

Air Toxics -

In the area of air toxics, since 1992, we've promulgated 43 standards regulating 78 source categories for industries such as coke ovens, petroleum refineries, and chemical plants. We've proposed 7 more standards covering 8 source categories, and delisted 5 other source categories. These standards will eliminate over 1 million tons of toxic air pollutants that cause

cancer and other adverse health effects, and over 1.5 million tons of smog-causing volatile organic compounds per year.

Stratospheric Ozone Protection Program

The Clean Air Act directs EPA to protect stratospheric ozone by phasing out ozone-depleting substances and substituting alternatives. Since 1989, the US production of ozone-depleting CFCs has almost been completely eliminated. Also, this phase-out was much less expensive than was predicted at the time the Act was passed. It was estimated in 1988 that a 50% reduction of CFCs (by 1998) would cost $3.55 per kilogram. In 1993 the cost was down to $2.45 per kilogram, and that was for a 100% phaseout (by 1996). This remarkable success is the result of strong partnerships and market mechanisms used in the effort to phase out CFCs. Reductions in concentrations of ozone-depleting compounds have already been measured in the atmosphere, and scientists predict the gradual recovery of the ozone layer by the mid-21st century.

We've also made significant progress towards cleaner gasoline and cleaner diesel fuel.

Reformulated Fuels Program -

In the 18 states that use reformulated gasoline (RFG), which by the way is 30% of the country's gasoline consumption, we have seen significant reductions in VOCs and toxics as a result of the program. Since 1995, the Clean Air Act has required a 15% reduction in VOCs

and toxics. Refiners' data now tells us that VOC reductions exceed the standard on average by 8% and toxic reductions are almost twice the standard. In those RFG areas where we measured, levels of benzene in the air were down 43%. This is exciting progress, since benzene is a known human carcinogen that has been linked to leukemia. One of the other benefits of this program is that reductions are immediate because cleaner fuels can be used in any car on the road today. EPA is preparing for Phase II of the RFG Program which will begin in January 2000.

And, going forward, by regulating cars and fuels as a system under our proposed Tier II standards, we will be achieving substantial emissions reductions. We expect to apply the same strategy to diesel fuels and engines as well.

Tier II/Sulfur-

We are proposing to hold SUV's and light trucks to the same national pollution standard as cars. And for first time, the same emissions standards will apply to all vehicles regardless of type of fuel - whether that be gasoline, diesel, or alternatives such as methanol/natural gas. (I'll come back to that point later.)

The emissions reductions from Tier II will be significant. We expect...

- NOx reductions from cars and light trucks of 2.2 M tons- a 70% reduction.
- Plus, PM reductions of 60%.

These impressive results have not come about by blindly implementing the Act using a command and control approach. These results have come by continually communicating with stakeholders from the beginning; by interjecting innovation and flexibility into our rules and implementation plans; by relying on the best available science and peer review process available; and by understanding that regulations are not always the only or the best way to reduce pollution.

2. We're doing it in a way using performance based standards and incentives. 2-3 min

Not only are we leading the effort to make the air we breathe cleaner for all Americans, but as part of that – we are changing the way we regulate to promote fuel choice and energy efficiency. Our objective is to provide natural gas, along with other sources of power such as coal, oil, wind, hydro, biomass, and solar power, equal opportunities to compete for new markets.

We're now trying to write, whenever possible, regulations that are not fuel-specific, but incorporate performance standards, market-based incentives, and new technologies. We believe, as opposed to using command and control, that this promotes innovation, reduces compliance costs, and gives alternative fuels an opportunity to be competitive.

We're doing this across all our Clean Air Act programs. For example, in our recent ozone transport rule (the NOX SIP Call), we specified an emission limit that is the same for different types of fuels -- a marked departure from the past. Additionally, we allowed companies flexibility on how they meet their reduction goals, including the ability to trade emissions. Or, in our NOx New Source Performance Standards, we are setting limits and allocating emission allowances based on the amount of electricity produced rather than the amount of fuel used. This policy will reward power plants and factories that are energy efficient and thus provide a boost for clean and efficient energy sources such as (wind, solar, and) natural gas.

3. And we're doing this specifically in ways that I think will directly benefit the penetration of natural gas vehicles into the marketplace. (5 min)

By requiring people to clean the air, we create more opportunities and incentives for cleaner fueled vehicles, including ones powered by natural gas.

Our standards help to provide people a chance to look at the full costs of their vehicle choice. - not just the cost of the car, or even what they pay at the pump, but the full range of effects, including air quality. And as this happens, natural gas becomes a more attractive alternative.

Now I know that historically, we've focused on regulating fuel to make it cleaner - for the reason that we firmly believe we need to reduce emissions from the technologies widely used today. You might feel that we've done so while neglecting to push cutting edge technologies like natural gas vehicles into the marketplace. But as we move forward under Tier II, I think the fuel-neutral basis of the auto standards will provide opportunities for alternative fueled vehicles, particularly natural gas, to compete on an equal footing.

In our proposed Tier II standards, auto manufacturers must meet an average target emission level for their entire fleet, and will have the flexibility to choose among various sets of more/less stringent

emissions levels when certifying individual vehicle models. Whereas before there was little incentive for automakers to produce low-emitting vehicles, now an alternatively fueled vehicle could potentially be used as an offset for higher-emitting vehicles in the fleet.

And we plan to apply the same strategy in the future to heavy-duty engines as well, and the diesel gasoline which generally fuels them. We're just beginning a national debate on diesel fuel -- there are significant concerns regarding its contribution to ozone and fine particle formation, and its toxic risks. For example, the South Coast Air District has found that diesel emissions are, by far, the largest contributor to urban air toxics risks in the Los Angeles area.

It could happen that diesel fuel and engines become sufficiently cleaner - but it could be that technological advancements, on top of the infrastructure already in place that currently supports alternatively fueled trucks and buses, could create a particular opportunity for natural gas. Our goal is to provide a level playing field.

We're also developing an Urban Air Toxics strategy that will identify and propose a strategy for the pollutants that pose the greatest risk to urban areas. Monitoring will play a key role, and will tell us to what extent we should focus on mobile sources (as opposed to stationary or area sources).

Importantly, though, we're moving beyond our regulations to look at ways that states or localities can take advantage of the air quality

benefits of cleaner fuels such as natural gas.

We're updating the MOBILE-6 model to incorporate natural gas vehicle emissions, so that areas doing attainment demonstrations under our NAAQS standards could use it to gain credit for their emissions reductions from natural gas vehicles. A draft version of the model is planned in the spring of 2000, with a final release in summer or fall 2000.

We're also working on incorporating voluntary emissions reductions credits for alternative fueled vehicles as an option in states' SIP submittals.

We're working with several airports across the country to encourage the use of strategies that reduce mobile source emissions, including alternatively fueled vehicles, and we've issued guidance that provides for the possibility that this could be used to gain emission reductions credit as well. Our Joint EPA/FAA Voluntary Aircraft Emissions Reduction Initiative is studying reductions from vehicles and ground support equipment as part of its overall plan to find a long-term solution to the growing problem of airport emissions.

We have joined DOE in an effort to sponsor alternative fuel projects that meet our environmental goals, help create sustainable communities, push the limits of current technology, and educate ourselves and others on the challenges faced by alternative fuels users. We are assessing interest and are in the process of selecting one or more cities.

(Note: This will very likely be a CNG project. public buses, transit w/in

city, parking meter trucks - city owned vehicles.)

And we're exploring truly innovative new ideas, ideas that might greatly enhance the flexibility of local, state, (and federal) regulators to make significant progress in reducing air pollution. One concept we're looking at is a "clean air investment fund" - where under a trading system, sources that have to pay a substantial amount to comply with regulations could pay into a centralized fund that would buy emissions reductions. We are working in cooperation with state and local governments and organizations to explore the ways in which such a clean air investment fund could be used to create incentives to retrofit or replace transit, school buses, and other municipal vehicles to alternative fuels.

Another exciting concept, one that the President has put forth in his budget for FY 2000, is the Clean Air Partnership Fund. The CAP Fund will serve as a catalyst for innovative public-private partnerships for air pollution reductions -- both in criteria pollutants and greenhouse gases -- leveraging the federal investment to stimulate technology innovation. The key criteria here is innovation. For example, a demonstration project to convert a city fleet to alternative fuel might well be innovative not only if it embraced new technology, but if it showcased creative financing mechanisms that overcame financial barriers.

Now, although natural gas vehicles are making progress towards

having an infrastructure that might support widespread use - it's our understanding there are refueling stations in all of the lower 48 states - most likely, there would need to be improvements made in the infrastructure before it becomes a mainstream technology. I think it bears mentioning that we have established an alternative fuels team at EPA that is dedicated to coordinating and studying the issues surrounding the greater acceptance of alternative fuels such as natural gas.

In May 2000, we will conduct a public workshop in San Diego on the infrastructure issues related to creating a sustainable market for AFV's, in conjunction with the Clean Cities Conference. It will provide a forum for examining what barriers exist that limit the sales of AFV's, and how those barriers can be removed. Moreover, we are planning to hold an Alternative Fuels Stakeholder meeting in November (which I'm sure some of you might attend) to gain insight on how we might plan an outreach strategy to promote alternative fuels. And, at the direction of the White House, we are participating with DOE in organizing the Alternative Fuels Summit to be held in early 2000 in New York City.

Closing:

At EPA, we view it as our responsibility to achieve clean air in ways that are smarter, cheaper, and more fuel-efficient. We think the best way to achieve this is to fashion our rules and policies as performance-based and fuel neutral. We are now, and have been for some time, working to this end, and as I've mentioned today, we are

sponsoring a number of initiatives that we hope can advance the technology for cleaner fuels such as natural gas, and spur its acceptance into the marketplace.

I think we've come a long way since that first time I studied these issues in 1978 - and I think the future holds even greater potential for our common goals of cleaner fuel and cleaner air. We look forward to an increasing level of partnership with your industry in the years ahead.

Thank you. Questions?

other possible info...

(Clean Fuel Fleet Program? - although this is not working particularly well...)

Retrofits of diesel engines to natural gas. Before, the only choice for a heavy-duty engine was diesel. Now, natural gas is becoming an attractive alternative for sources (esp. utilities) to provide offsets for new sources. We're not so supportive of the retrofit technology though...(Carey Fitz)
Incentives for offsets from NSR?

Other Incentives...

- CAFÉ credits to manufacturers (Defined by the Alternative Motor Fuels Act of 1988.)
An incentive program to stimulate the development and widespread use of alternatives to petroleum fuels. Grants alternative fuel vehicles substantial CAFÉ credits.

- Fuels incentives: Lower excise taxes for certain fuels.
CNG taxed at 5 cents/gallon gasoline-equivalent (vs. 18.3 cents for gasoline)

Refueling Stations: EPACT provides up to $100,000 credit for

alternative fuel refueling properties.

(does this apply to CNG?)